## DOCUMENTS, REPORTS, AND LEGISLATION

### Industries and Commerce

FACTORS IN THE MARKETING OF FARM PRODUCTS. The agricultural colleges and experiment stations of the United States, and the departments of agriculture both state and national, have been working on the basis that "supply and demand" is the one determining factor in shaping prices. If it is just a technological question of costs as affecting the supply and a hedonistic question as explaining variations in demand, naturally the entire consideration should be given to developing efficient methods of production. The emphasis will be on decreasing expenses in order to increase profits. Competition will be merely a rivalry of industrial methods of production, in which the fittest will survive.

The position of these institutions has been in accord with the best economic tradition. All economists, as well as legislators and judges, have advocated free competition as the best means to help the fittest survive. Fitness has not been conceived to be that of an organization but that of the individual entrepreneur. Organization from the time of Adam Smith to the present has been thought to be an obstructor of free competition. According to the traditional view the proper competition is a competition between individuals. That railroads and steamboats would necessitate the development of a different plan for the distribution of goods to a world market was not, of course, thought of when economic theory first took form. According to this individualistic concept of business, efficiency is not to be achieved through a system of organization but by the individual business man producing independently and selling cheaper than his competitors.

Gradually, however, different lines of business have found that individualistic competition is too costly. More factories have been built than can be run profitably. With so many engaged in the business of distributing, its cost has become too great. The New York Food Commission, in its report, recommended more organization among producers and consumers to reduce the cost of distributing farm products. Organization alone makes possible systematic distribution. Free competition means chaos in the marketing of a product. Seventy-five per cent of the manufacturers in the United States have formed corporations. The laboring population is finding it necessary to organize in order to deal satisfactorily with organized capital. The European farmers have organized; and now at last the American farmers are organizing. Many associations in grain, fruit, truck,

butter, and other lines have been formed. In Minnesota alone there are 2103 farmers' corporations doing a business of $60,760,000 annually.

Under what conditions is organization desirable in the marketing of farm products? A good local market presents a situation which is very old with us: farmers can huckster products without organization. But most farm products have to seek a distant market, and so must either be sold to a local merchant or traveling buyer or must be shipped to a distant commission merchant.

The local merchant is not a packer and shipper by training. Sale of the farmer's products is only an incident in his business of retailing goods to consumers. The stuff he buys is generally the by-products of the farm. It comes in ungraded, without standard or brand, and has to be sold at a low price. Local merchants in 67 North Carolina towns report buying butter at an average price of 15 to 19 cents a pound for the year 1914; in 48 towns, at 20 to 24 cents a pound; and in 22 towns, at 30 cents or more. Fifty-eight towns in 29 counties report paying the farmers on an average 15 to 19 cents a dozen for eggs during 1914; and 69 towns in 41 counties report 20 to 25 cents a dozen. The Catawba Creamery Company, of Hickory, North Carolina, was able to pay its patrons 30 cents a pound for butter fat on an average for the year 1912, and 30 to 31 cents during 1913 and 1914. Before the organization was formed the farmers sold their butter to local merchants for from 15 to 25 cents a pound.

Shipment of products to commission merchants is like hiring a man with the expectation of not bossing him. A commission merchant acts without any possibility of oversight by the individual farmer. Through organization, farmers may safely trust their products to such agents. If a commission house does not act fairly, an organization may blacklist it. A commission merchant can not afford to risk the withdrawal of the patronage of an organization with a large volume of business. The Southern Produce Company of Virginia, doing a business of $8,000,000 a year, is thus able to insure fair dealing for its members.

In the present scheme of business, production in isolation does not pay. The low prices received for butter and eggs by the unorganized farmers in western North Carolina show up this method of production. A large volume of business reduces operating expense whether the farmers of a section are organized or not. A small business can not afford to have its own telegraphic service, or its own representatives to watch markets and drum up trade. The Eastern Shore of Virginia Produce Exchange pays out $20,000 a year for telegraphic expenses alone. The California Fruit Growers Exchange has salaried agents

in all the leading towns of the United States and Canada to watch markets and solicit trade. Knowledge of markets becomes an important factor. If the farmer has business agents in several towns, upon whom he may rely to keep him informed as to prices and possible sales, he is not dependent upon one market. Dependence upon one market, upon such traveling buyer or a local merchant, results in low prices, for such person or market occupies the position of a monopolist. Or, several buyers may combine and act as one. The only safeguard is in provision to sell in more than one market. The expense of this is generally too great for the isolated farmer.

The production of standardized goods is a prime requisite to sale in distant markets. The manufacturer standardizes his products and so has no trouble in selling, on the basis of a trademark, to distant buyers. No matter how good the quality of the butter may be, a local merchant will not generally be able to sell, at the top of the market, the output of one small producer, for the reason that there is too little of it to spread abroad a reputation. Iowa butter sells in North Carolina because there is enough volume back of the brand to give it the momentum to reach this state. Disorganization among the potato growers of North Carolina increases the number of middlemen required and consequently the expense of distributing this product. Chicago produce dealers can not buy directly from the producer, for they can not rely upon the quality of the product nor upon getting it when they want it. So they buy North Carolina sweets through Norfolk or Baltimore dealers; and the latter buy their supply from local North Carolina solicitors.

An organization can learn the demands of a market and the requirements for shipping, can reduce these demands to rules, and enforce the rules upon its members. The Eastern Shore of Virginia Produce Exchange finds it necessary to pay $30,000 a year for the purpose of insuring proper grading on the part of farmers. This means a cost of about 1 per cent on gross sales for the expense of maintaining a systematic inspection of grades. As a result, they have a brand of potatoes, the Red Star brand, which is known from the Atlantic to the Pacific. On the basis of known grades the organization can sell 95 per cent of its potatoes f. o. b. loading point by wire to jobbers in the leading markets of the United States. In 15 counties of North Carolina 2500 farmers report that the buyers determine their grades for them. Thus the better grades frequently receive no recognition. A carload of mixed grades is harder to sell and is liable to bring the price of the lower grades. In the same way cotton farmers who have

no knowledge of grades can not sell by wire or letter to mills. Sales have to be made to traveling buyers or to local merchants who can sample the cotton before buying. A stock-raiser is not in a position to ship his own products unless he raises a standard breed. Only an organization of stock-raisers would be able to spread abroad a reputation for a grade of a particular breed of hogs or cattle. In some lines, the middlemen's organizations are helping the farmers to organize, as in the case of the potato growers of Wisconsin and of the vegetable growers of California. This is the only way a large distributing corporation can secure a standardized product and its delivery in the amount and at the time desired.

Through organization, better transportation can be secured. Without favorable freight rates Greensboro would not be one of North Carolina's main distributing points for cotton. That town has the storage-in-transit privilege, by which the cotton can be shipped into the town, stored, and then shipped out at a balance of the through rate from the point of origin. Without favorable conditions of transportation the California Fruit Growers Exchange could not distribute its own fruit throughout the United States. The "postage stamp rate" or flat rate for all eastern points in the United States and Canada gives this association power to start cars and to stop them at cities like Kansas City, Omaha, or Minneapolis, if prices are good, and if not, to keep them going until a good market is reached. Thus an organization is not forced to sell in any particular city. Resales by middlemen from glutted markets are prevented.

Farmers organize to pool their sales or purchases. The aim is profits to members as producers and not as stockholders. If the organization makes the profits, it becomes an inducement for a few to control it for their own benefit. Thus an association of farmers may finally become a corporation of middlemen to exploit the producer. To prevent this and to insure that the organization shall continue for the benefit of all the members it is necessary to make a legal provision for the incorporation, maintenance, and supervision of a coöperative form of organization. The corporation law of ordinary business does not encourage the development of organization in agriculture. The coöperative association should be allowed by special statute to restrict the powers which now prevail under corporation law by limiting the dividends to an interest charge, by limitating stock transfer to those eligible to membership, amount of stock which can be owned, and the voting power to one vote to each member. If profits over and above a necessary interest are prorated to the producer according to the

amount of products handled for him, the organization may be said to be doing business for its members at cost. Another practice for securing the same result is to have a fixed brokerage charge to cover expenses and to pay to members any surplus above expenses which may remain after the year's business is done; or any uncovered expenses may be prorated to members according to the amount of business transacted. The form of organization is so important, to insure the permanence of any association of farmers, that it may be said to be a factor in the marketing of farm products.

WILLIAM R. CAMP.

*Agricultural Experiment Station, North Carolina.*

OFFICE OF DIRECTOR OF MARKETS CREATED IN IDAHO. The legislature of the state of Idaho at its last session, 1915, created the office of director of farm markets, carrying a salary of $2500 per year, and filled by appointment made by the governor, the appointee holding office for two years.

The creation of this department is an important step in the effort on the part of the state to solve the difficult problem of marketing farm crops. In this particular case, however, the scope of the work outlined for the director of markets is so wide that little of definite value can be expected that will shed light on the main problem, that of marketing farm crops.

The duties of the director are "to promote, in the interest of the public, economical and efficient production and distribution of all farm commodities."[1] He is authorized to establish a market news service which is to include information regarding crops, freight rates, and commission rates. His office is to act also as a clearing house for information between producers and consumers. It is his duty to coöperate with both the producers and consumers, to devise economical and efficient systems of distribution by a reduction of waste and expense incident to marketing, and to investigate the methods of all those who act in the capacity of middlemen handling farm products in order to accomplish distribution without hardship, waste, or fraud. He is expected to improve country life, and, so far as is in his power, to provide equality of opportunity for all farmers of Idaho. To these duties are added those of an immigration officer, as, for example, to determine what conditions make for success and what for failure of the home-seeker and to use all means in his power to remedy conditions which lead to failure. It is his duty to detect fraud practiced by

[1] Bill Creating the Office of Director of Markets.

unscrupulous land agents upon home-seekers, in the sale or transfer of real estate, and, if found, to see that the wrongdoer is prosecuted. He must scrutinize all advertisements pertaining to colonization, and warn all home-seekers against inaccurate or misleading statements. His office is to be a labor agency for farm labor and he is authorized to act as a land agent listing farm property for sale, for which service he is to charge a fee of one dollar for entry and a commission of one per cent in case of sale.

Much as all these phases of agriculture need attention, it should be evident to any one who considers the matter seriously that one official can not attend to duties so varied as those enumerated and do justice to them. The predicament of the legislature is quite clear. In their endeavor to solve the problem of marketing farm products these various related problems appeared and one thing led to the other. The gravity of the market problem in the Northwest can be attributed in no small degree to the real estate booms, when, on account of misleading and inaccurate statements, many were induced to pay prices which are far beyond the productivity of the land. Especially was this true of the irrigated lands. The stimulation of agricultural immigration only aggravated the problem since it increased the supply of farm products to a greater degree than it did the demand.

A. W. Taylor.

*Washington State College.*

Water Terminals and Water Competition. The business of transporting passengers and freight by water is generally assumed to be competitive and, until recently, not properly subject to any special supervision or control. Transportation by rail is now subject to careful supervision by a national commission and several state commissions. Aside from the greater magnitude of railway transportation it is doubtful if the need of large regulative powers on the part of the government is any more urgent in the case of rail carriers than in that of water carriers. The nature of the competitive methods employed by rival carriers is one reason why some regulative measures are necessary. Rates for transporting passengers and freight by water are fixed by competition to a greater degree than rail rates. As in the case of rail transportation, however, unregulated competition almost inevitably takes a form calculated to destroy itself—one company or combination of companies securing in the region served a virtual monopoly of trade.

The key to an adequate control of navigation companies is the water

terminal. Proper wharfage facilities and the right to make arrangements with other carriers with reference to the transshipment of passengers and freight at the terminal points are essentials to the successful operation of a water carrier. Hence, efforts to limit or throttle competition at shipping ports generally take two forms which may be described as follows:

1. *Discrimination at terminals or at points of transshipment with reference to the use of wharfage facilities.* This discrimination is shown in the ownership or control of the well-situated docks and wharves and the refusal to allow these facilities to be used at reasonable cost by independent carriers. Private interests control the greater part of the active water frontage at our leading ports; and these interests are often those whose operations are opposed to any general development of water traffic. Public control, in any considerable measure, exists only at New Orleans, San Francisco, Baltimore, and New York; and in the last of these places this control is almost nullified by exclusive private leases for long terms. "Two ports only, New Orleans and San Francisco, are noteworthy for their high degree of public ownership, control, efficiency and equipment."[1] The government makes enormous expenditures in dredging rivers and harbors to promote navigation, only to have its action neutralized by the lack of proper supervision, on the part of local governments, over terminals.

2. *The refusal to grant through routing privileges.* This refusal is generally a discrimination against certain carriers at transshipment points on the part of connecting railroads or steamship lines. Through bills of lading issued by favored carriers are honored, while those of others are refused recognition. Where through bills of lading are accepted, prorating arrangements are usually entered into between the connecting carriers. This accentuates the discrimination against the independent line which is refused recognition, and forces the latter to carry through freight at higher rates than those of the favored competitor. Lines denied through routing privileges are refused membership in traffic associations composed in part of connecting carriers. This exclusion means an additional burden in the matter of publishing rates.

At most of the leading ports of the country, railroads or large shipping combinations own the wharves or control them under long-term leases.[2] The public character of a wharf used in the shipment or landing of freight by a common carrier is not adequately recognized

[1] *Report of Commissioner of Corporations on Transportation by Water in the United States*, pt. III, *Letter of Submittal.*

[2] *Ibid.*, pt. III.

outside of a comparatively few municipalities. Treated as private property, with all the privileges incident thereto, one or a few carriers may determine what traffic shall come to a port and what shall not, and whether it shall come by rail or by water.[3] Instances are not wanting where docks and wharves have been occupied apparently for no other purpose than to prevent their use by others.[4]

There are, however, some signs of a changed attitude toward the character of terminal facilities irrespective of their private ownership. A few years ago the question of the public use of docks owned by railroads engaged in interstate commerce was considered before the Interstate Commerce Commission in the Mobile Dock case. Another matter involved in the case was the issuing of through bills of lading. At Mobile, the Mobile Liners, an agency for the Leland-Harrison Line, alone enjoyed through bills of lading on European business. The Mobile and Ohio Railroad and the Southern Railway attempted to control the cotton movement for this line, with which they had an exclusive contract. On the railroads' refusal to recede from their position, the Mobile Chamber of Commerce made complaint to the Interstate Commerce Commission, and hearings were held in Mobile. A part of the complaint related to the case of the United States Shipping Company, which had arranged with the Mobile and Ohio Railroad to handle part of its business to Colon. This railroad gave permission to land at its wharves and issued through bills of lading for one or two trips. Suddenly the railroad declared it could no longer accommodate the United States Shipping Co. The latter was not allowed to land its ships at the railroad wharf or make ship-side deliveries.

On May 7, 1912, the Interstate Commerce Commission entered an order as follows:

1. Where a railroad has a wharf to which its tariffs offer delivery and at which part of the shipping public is served, such a wharf becomes a public terminal, and if all shippers are not given access to it by the boats they choose to employ, it then becomes the carrier's duty to make delivery at other available docks at the same rates.

2. A railroad has a right to reserve wharves for its own use and for the use of such water carriers as it prefers, provided it affords to the public access to equal facilities elsewhere at equal rates.

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[3] Some examples of this practice appear in *Hearings before Committee on Interoceanic Canals* (62 Cong.), pp. 151, 161, and 162, and *Hearings before Committee on Merchant Marine and Fisheries* (62 Cong.), pp. 982 and 983.

[4] Testimony of B. N. Baker in *Hearings before Committee on Merchant Marine and Fisheries*, p. 1300.

3. Where a rail carrier making a rate to a port institutes a practice of authorizing its agents to issue bills of lading for water lines, it must extend such practice to all water lines under reasonable regulations.[5]

According to this case, a wharf owned by a railroad engaged in interstate trade and used by part of the shipping public becomes a public terminal. Wharves may be reserved for its own use or the use of such carriers as it prefers, but equal facilities at equal rates must be furnished elsewhere. It is to be observed, however, that this decision applies only to wharves owned or controlled by railroads.

The refusal to allow through routing arrangements to certain lines is another form of terminal discrimination: that is, discrimination against some water carriers in favor of others, or against water carriers in general in favor of rail carriers. Through routing arrangements imply the right to use through bills of lading and the right to prorate. The two, though distinct, generally go together. Where a through bill of lading is refused, the initial carrier must issue a supplementary bill of lading, forward the charges on freight, and meet transfer expenses which are generally absorbed in through routing. Where the right to prorate does not exist, a rate over the routes of two or more connecting carriers is the sum of the local rates, to which transfer charges are usually added. Where it does exist the through rate is usually much less than this. It is needless to say that where through routing or prorating arrangements are denied one company and allowed another, the effect is destructive to the business of the carrier discriminated against, except on local traffic.

This discrimination is more serious when the connecting carrier is a railroad than when it is another water line. A steamship company generally transports commodities, produced in certain areas and carried by railroads, to the port of shipment to be further transported to another port for final delivery to various inland points connected by rail. A water line refused through-routing privileges must not only name the local rates by rail and water, but add heavy charges for transshipment. Where a railroad competes with a water carrier, it is frequently enabled by virtue of its strategic position to divert to rail routes traffic which would ordinarily go by water.

The refusal to prorate on the part of the railroads and large shipping companies is very common in all parts of the United States. The effect of this refusal is nowhere better illustrated than on the traffic passing through the Erie Canal. At the present time the only through steam-

[5] Complaint No. 4242, *Mobile Chamber of Commerce et al.* v. *Mobile and Ohio Railroad Co. et al.*, Interstate Commerce Commission.

ship line on the Great Lakes which reaches Buffalo and has canal connections independent of railroad control is the Pacific Despatch.[6] It is available to independent forwarders, but its facilities are limited as it has but one boat. The only other outlet from Buffalo for canal freight carried by independents and bound to upper lake ports is shipment by rail or by railway-controlled lake lines. The canal rate to Buffalo plus the rail or local lake rate plus the charges for transshipment at Buffalo makes the through rate so high compared with the through rates over the railway routes that independent forwarding agencies have virtually no chance to do more than local business. An independent canal forwarder, in talking with the writer some years ago, characterized the refusal of the railroads and railroad-controlled lake lines to prorate with independent forwarders as practically putting a Chinese Wall around the Erie Canal.

The state of New York has recently been making extensive improvements at enormous expense for the purpose of increasing the efficiency of the canal. In view of the attitude of the trunk-line railroads toward canal traffic, the Interstate Commerce Commission has recently ordered these roads to dispose of their holdings in the lake steamship companies. How far this order will go toward improving the position of the independent canal forwarders remains to be seen. A step in the right direction, it seems to the writer, was taken some time ago in a decision by the commission materially extending the rights of independent lines to prorating privileges. The Flour City Line,[7] operating between Duluth and Buffalo, published a proportional of 6.3 cents per 100 pounds on flour, or 1.7 cents less than the railroad-owned boat lines. The railroads west of Duluth published a proportional of 5 cents from Minneapolis to Duluth, or a reduction of 0.8 cents, and issued through bills of lading to New York via the Flour City Line. The railroads east of Buffalo declined to establish this through route or to recognize the through bills of lading. They accepted the traffic at Buffalo only

[6] *Report of Commissioner of Corporations on Transportation by Water*, pt. IV, p. 59.

It may be mentioned in this connection that the Detroit and Cleveland Navigation Co. and the Cleveland and Buffalo Transit Co. are also independent concerns. Their operations, however, are confined mainly to Lake Erie and the Detroit River, and hence are not through lines. It should also be understood that the term "line" is applicable to public carriers having regular sailings. Ore steamers, lumber vessels, etc. are not public carriers in this sense and their sailings are not regular.

[7] I. C. C. No. 4495, *Flour City Steamship Co. et al.* v. *Lehigh Valley R. R. Co. et al.*

upon the local bills of lading at the local rate of 11 cents instead of 9.2 cents proportional given on through bills of lading via their own boats. They also declined to absorb the handling charges. The Interstate Commerce Commission was asked to establish a through route and a joint rate of 20.5 cents, there being already an established through route and a joint rate of 23 cents between Minneapolis and New York.

The Interstate Commerce Commission held that the publication of proportional rates by the western carriers and by the Flour City Line covering a through movement from Minneapolis to Buffalo when for beyond, the actual movement of traffic upon through bills of lading from Minneapolis at least to Buffalo, and the prepayment of freight charges, in some instances through to New York and in others to Buffalo necessitating an accounting between carriers, is evidence of the common arrangement for continuous carriage or shipment contemplated by Section I of the Act to Regulate Commerce. It was further held that the Flour City Line was a common carrier subject to the jurisdiction of the commission, and that the existence of through routes capable of adequately and expeditiously handling all traffic no longer constitutes a bar to the establishment of another through route by the commission. The commission was not prepared to find, however, that the 9.2 cents proportional was an absolute measure of the reasonableness of the division that should accrue to the eastern carriers on traffic reaching them via steamers in which they have no interest. The eastern carriers were required to honor through bills of lading via the Flour City Line and were not to receive a division in excess of 11 cents, which should cover the handling charges.

It is to be observed that the Interstate Commerce Commission exercised its power by virtue of the fact that the Flour City Line had traffic arrangements with the railroads west of Duluth and hence came under its jurisdiction. A water line enjoying no prorating privileges with railroads would have been outside the jurisdiction of the commission and therefore helpless. The report of the Chicago Harbor Commission, published in 1909, referring to transportation on the Great Lakes, says, "The principle of equal treatment for all requires that any responsible boat line shall be accorded the same through route arrangements that are given any other boat line." The decision in the Flour City Line case seems to go a long way toward establishing this principle for water lines which are common carriers and have traffic relations with railroads. Through routing arrangements between connecting steamship lines are, of course, outside of the jurisdiction of the com-

mission, and no other governmental agency has at present any authority to interfere with the contractual relations of these companies in this respect.

Through routing arrangements and reasonable charges for the use of wharfage facilities are among the most important privileges sought and secured by admission to membership in railroad and steamship traffic associations. Exclusion from such organizations generally deprives the carrier of prorating privileges with important railroad and steamship lines. An added disadvantage is the heavy expense of publishing a tariff schedule. An independent line outside of the traffic association must bear this expense by itself and the cost is often several thousand dollars. Where an association prepares and publishes a tariff the expense to each member may not be one hundred dollars.[8]

The terminal is an important link in the waterway system of the country. Where a responsible carrier is denied adequate facilities for receiving, landing, or transshipping his freight, the advantages of cheap water transportation are to that extent lost to the public. The present attempt on the part of the government to divorce steamship lines on the Great Lakes and elsewhere from railroad control may increase to some extent the opportunities of independent boat lines to secure better connections with land carriers. However, it does not go far in the direction of solving the problem raised by the competition of water carriers in their efforts to secure proper terminal facilities. The Mobile Dock case and the Flour City Line case are instructive as showing a disposition to recognize that a wharf used by a common carrier in its ordinary business, even if privately owned, is a public terminal, and that the relationship between connecting rail and water lines must be determined by something more than a mere private contract. Governmental regulation concerning the competitive relations between water carriers and between these and railroads are both necessary and urgent, and it is at the water terminal that this regulation is at present most needed.

ABRAHAM BERGLUND.

*University of Washington.*

The Bureau of Foreign and Domestic Commerce of the federal Department of Commerce has issued the following Special Consular Reports: No. 68, *Tobacco Trade of the World* (pp. 48); No. 70, *South American Market for Jewelry and Silverware* (pp. 23); No. 71, *Some Aspects of the Iron and Steel Industry in Europe* (pp. 48); also in

[8] Testimony of Elijah Warfield in *Hearings before House Committee on Merchant Marine and Fisheries* (62 Cong.), pp. 1035-1037.

Special Agents Series, No. 95, *Rattan Supply of the Philippines* (pp. 40); and in Miscellaneous Series, No. 25, *European Markets for Fish* (pp. 36).

The Office of Markets and Rural Organization of the federal Department of Agriculture has prepared a study on *Coöperative Organization. Business Methods,* by W. H Kerr and G. A. Nahstoll (Washington, 1915, pp. 24). There is a page of bibliography dealing with books on accounting and office practice.

Among recent Farmers' Bulletins of the federal Department of Agriculture are to be noted: No. 656, *The Community Egg Circle,* by C. E. Bassett (Apr. 6, 1915, pp. 7); and No. 672, *The Agricultural Outlook* (Apr. 3, 1915, pp. 28).

An interesting chapter describing the familiar phenomena of monopolistic relationships and discrimination in the marketing of oil is given in a recent report published by the federal Bureau of Corporations entitled *Conditions in the Healdton Oil Field* (Washington, 1915, pp. xiv, 116).

The Department of Mining Engineering in the University of Illinois and the State Geological Survey in coöperation with the United States Bureau of Mines have issued Bulletin 9 entitled *Coal Mining Practice in District III,* by S. O. Andros (Urbana, 1915, pp. 30).

William A. Prendergast, comptroller of the city of New York, has made a *Report on the Maintenance of Public Markets in the City of New York and the Financial Results to the City of the Nine-Year Period of Operation ended December 31, 1914* (New York, pp. 25).

The *Supplementary Report of the Directors of the Port of Boston,* March 31, 1915 (pp. 101) contains many maps and charts bearing upon transportation problems. One chart represents passenger and freight agreements in the North Atlantic trade; another shows the traffic movement inward via New York and Boston to 18 cities of Massachusetts, based on investigations made in 1912.

A conference was held September 10, 1914, at Washington, of representatives of Latin-American countries before the Secretary of State and the Secretary of Commerce to discuss the possibilities of extending commerce in Latin-America. A verbatim report has been published in a bulletin of the Department of Commerce entitled *Statements on the Latin-America Trade Situation* (Washington, 1914, pp. 39).

From the Department of Mines, Canada (Ottawa, 1914), have been received: *Annual Report of the Mineral Production of Canada during 1913* (pp. 263); *Petroleum and Natural Gas Resources of Canada,* vol. I (pp. 378); and *Investigation of the Peat Bogs and Peat Industry of Canada, 1911-12* (pp. 47, xxi).

The Commission of Conservation, of Canada, has recently issued an interesting and suggestive study on *The National Domain in Canada and its Proper Conservation,* by Frank D. Adams, dean of the faculty of applied science at McGill University (Ottawa, 1915, pp. 48). In its original form it was the presidential address in 1914 before the Royal Society of Canada. The pamphlet is supplied with several maps and illustrations.

## Corporations

Among the reports of public service commissions, the following have been received:

*First Annual Report of the Public Utilities Commission of the State of Colorado and Fourth Biennial Report of the State Railroad Commission of Colorado* (Denver, 1914, pp. 258).

*Abstracts of Reports of Corporations. Public Service Commission, Second District, New York,* Vol. III (Albany, 1914, pp. 348). The reports are from electrical, gas, telegraph, telephone, and steam corporations.

*Fifty-sixth Annual Report of the Railroad Commissioners of the State of Maine* (Augusta, 1915, pp. 502).

*Report of the Public Service Commission of Maryland for 1914* (Baltimore, 1915, pp. vii, 822).

*Thirtieth Annual Report of the Board of Gas and Electric Light Commissioners of Massachusetts* (Boston, 1915, pp. 276, 466).

*Third Annual Report of the Public Utilities Commission of Rhode Island for 1914* (Providence, 1915, pp. 87, x).

*Fifth Annual Report of the Quebec Public Utilities Commission* (Quebec, 1914, pp. 79).

*Twentieth Annual Report of the Boston Transit Commission, 1914* (Boston, pp. 202).

The National Civic Federation has published as a separate pamphlet *Shall the Government Own and Operate the Railroads, the Telegraph and Telephone Systems? Shall the Municipalities Own Their Utilities? The Negative Side* (New York, pp. 119, 50 cents).

## Labor

FIFTY-FOUR HOUR LAW FOR WOMEN AND MINORS IN MAINE. The 54-hour law for women and minors under 16, approved March 31, 1915, is, in some respects, notably in its application to commercial pursuits, an advanced measure and has given rise to so much criticism that petitions for a referendum have secured the requisite 10,000 signatures; and the operation of the law is therefore suspended until after the election of 1916. The act not only prohibits the employment of women and minors under 16 at night or for more than 9 hours during the day (the hours being delimited) with a maximum of 54 hours per week, in workshops, manufacturing and mechanical establishments or laundries, but extends this same limitation so far as the 54-hour week is concerned to telephone exchanges where more than three operators are employed, to mercantile establishments, stores, restaurants, telegraph offices, express and transportation service. The law is not to apply during the rush season preceding Christmas (December 17 to 24 inclusive) nor to millinery shops and stores for the 8 days preceding Easter Sunday. Exceptions are also allowed in public service industries where, in an emergency, property or the public safety or public health is endangered, and, perhaps most significant of all for its bearing upon the sardine canning industry, "in manufacturing establishments whose materials or products are perishable and require immediate labor thereon."

WARREN B. CATLIN.

*Bowdoin College.*

The following reports relating to various labor problems have been published by the federal Bureau of Labor Statistics:

No. 157, *Industrial Accident Statistics,* by Frederick L. Hoffman (Mar., 1915, pp. 210). The number of annual fatal industrial accidents among American wage-earners including both sexes may be estimated at 25,000; and the number of injuries involving a disability of more than four weeks, at approximately 700,000. One section considers the movement for standardization of reporting, classifying, and tabulating statistics of industrial accidents.

No. 159, *Short-Unit Courses for Wage Earners and a Factory School Experiment,* by W. A. O'Leary and Charles A. Prosser (Apr., 1915, pp. 93).

No. 166, *Labor Legislation of 1914,* by Lindley D. Clark (Dec. 15, 1914, pp. 290).

No. 172, *Unemployment in New York City, New York* (Apr., 1915, pp. 24).

The Children's Bureau of the United States Department of Labor has published the first of a series of studies relating to the *Administration of Child Labor Laws,* with particular reference to the method of issuing employment certificates. The first report is *Part I. Employment Certificate System of Connecticut,* by Helen L. Sumner and Ethel E. Hanks (Washington, Bureau Publication No. 12, 1915, pp. 69).

The Bureau of Statistics and of Information of Maryland in the *Twenty-second Annual Report, 1913* (300 Equitable Bldg., Baltimore, 1914, pp. 225) has reported at length on a study of "Economic status of families of working children." In 1913 for the first time there was opportunity in Maryland for putting in force a thoroughgoing child labor law. Various tables show the reasons why children go to work and on what grounds employment certificates have been granted. The bureau has pushed its inquiries in new directions which should be suggestive for investigators elsewhere.

The Minimum Wage Commission of Massachusetts in its Bulletin No. 6, March, 1915, deals with *Wages of Women in Retail Stores in Massachusetts* (Boston, pp. 64). Tables show the actual weekly earnings by occupations, fluctuation of employment among some 6000 workers, and extra earnings. The investigation covers five-and-ten-cent stores.

The *Second Annual Report of the Minimum Wage Commission of Massachusetts* for 1914 (Boston, 1915, Pub. Doc. 102, pp. 158) summarizes the work of the board particularly in the confectionery, laundry, and retail shoe industries.

The *Second Annual Report of the State Board of Labor and Industries* (Boston, 1915, Pub. Doc. 104, pp. 60) has pages on industrial hygiene and the administration of the home work division.

Report No. 4 of the Department of Investigation and Statistics of the Industrial Commission of Ohio deals with *Industrial Accidents in Ohio, January 1 to June 30, 1914* (Columbus, 1915, pp. 324). It not only contains statistics of claims and awards but also tabulates data relating to 26,810 injuries. "This is the first comprehensive report on accidents which has ever been published in Ohio and is one of the few reports of this character which have appeared in the United

States." Statistics are given which show the nature and extent of the resulting disability, previous experience of injured employees, and their ability to speak English.

A committee organized by the American Association for Labor Legislation submitted to the Constitutional Convention of New York State, under date of June 9, 1915, *Constitutional Amendments relating to Labor Legislation and Brief in their Defense* (Prof. H. R. Seager, chairman, pp. 59).

The June, 1915, issue of the "American Labor Legislation Review" deals with *Unemployment,* containing the proceedings of the *Second National Conference and Reports of Investigations* with supplemental bibliography (New York, 131 East 23d St., pp. 463, $1).

There has appeared the *Proceedings of the First Annual Convention of the Association of Governmental Labor Officials; Twenty-eighth Annual Convention of the International Association of Factory Inspectors: and the Thirtieth Annual Convention of the International Association of Labor Commissioners,* held at Nashville, Tenn., June, 1915 (W. L. Mitchell, Nashville, pp. 220).

## Money, Prices, Credit, and Banking

Reports on state banking have been received as follows:

*Annual Report of the Superintendent of Banks of Alabama for 1914* (Montgomery, 1915, pp. 149).

*Annual Report of the State Bank Commissioner of Colorado for 1914* (Denver, 1914, pp. 247).

*Report of the Bank Commissioners of Connecticut* (Hartford, 1914, pp. 423).

*Twenty-third Annual Report of the Secretary of the State Banking Board of Nebraska,* 1914 (Lincoln, 1915, pp. xxxiv, 381).

*Report of Savings Banks, Trust Companies, Safe Deposit Companies, Miscellaneous Corporations, and Personal Loan Brokers* (Albany, 1915, pp. 665).

*Report of the Bank Commissioner of Utah, 1913-1914* (Salt Lake City, 1915, pp. 105).

*Eighth Annual Report of the State Examiner of Washington* (Olympia, 1915, pp. 112).

*Banking Law of the State of Idaho,* compiled by G. R. Hitt, state commissioner, has been reprinted. Copies may be had of the Boise City National Bank, Boise, Idaho (pp. 36).

## Public Finance

The Superintendent of Documents has issued a special price list of public documents on *American Finance* (No. 28, 1914, pp. 40).

Among the reports of state tax commissions the following are to be noted:

*Second Biennial Report of the Arizona State Tax Commission* (Phoenix, Dec. 28, 1914, pp. 158). This contains a vivid account of the new assessment by which the valuation of the state was raised 267 per cent in a single year. An extended discussion is given to mine taxation.

*Report of the State Board of Equalization* of California for 1913-1914 (Sacramento, 1914, pp. 237). Some 25 pages are devoted to a discussion of new sources of revenue.

*First Biennial Report of the Tax Commission* of Florida for the period ending December 31, 1914 (Tallahassee, 1915, pp. 48). This commission started to enforce a full cash value assessment, but compromised temporarily at a rate of 50 per cent. It hopes later to issue instructions enforcing a higher valuation.

*First Biennial Report of the Idaho Tax Commission,* 1913-1914 (Boise, 1914, pp. 112). A supplement contains a special report on the tax situation in Idaho sent in February 14, 1914.

*Report of Tax Commissioner* of Massachusetts for 1914 (Boston, 1915, pp. 142). Several pages are devoted to the new stock transfer tax and to the optional registration of bonds for purposes of taxation.

*Eighth Report of the Board of State Tax Commissioners and State Board of Assessors of Michigan,* 1913-1914 (Lansing, 1915, pp. 13).

*Fourth Biennial Report of the Minnesota Tax Commission* (St. Paul, 1914, pp. 435). Particular attention is given to taxation of mines and minerals, and the previous studies on cost of government are continued.

*Second Biennial Report of the North Dakota Tax Commission* (Bismarck, 1914, pp. 204). Contains chapters on cost of government, assessment of bank stock, railroad taxation, and tax commissions.

*Fourth Annual Report of the New Hampshire State Tax Commission* for 1914 (Concord, 1914, pp. 146). As New Hampshire has recently enforced the policy of full cash valuation, several pages are given to a definition and discussion of the principle.

The auditor of public accounts of Virginia, C. Lee Moore, has prepared a pamphlet, *Virginia Tax Laws 1915 with the Provisions of the Code and Acts of the Assembly in relation to the Duties of the Com-*

*missioners of the Revenue and Treasurers of the Several Counties and Cities* (Richmond, Apr., 1915, pp. xlv, 168) which briefly describes sources of income.

The New York Tax Reform Association (29 Broadway) has published as No. 560 a review of *Tax Legislation, State of New York, 1915; With Abstract of Changes in Other States.*

The bulletin of the Bureau of Municipal Research (261 Broadway, New York) for April, 1915, is devoted to a discussion of *The Condition of the New York State Sinking Funds* (pp. 273-308).

Volume X of *The Finance Commission of the City of Boston: Reports and Communications* (Boston, 1915, pp. 294) contains among other documents a special study on street lighting.

The Guaranty Trust Company of New York (140 Broadway) has published *The Secured Debts Tax Law* (pp. 13) and a booklet describing the financial principles of *Amortization* (pp. 12).

In November, 1914, a special committee of the city of Cambridge, Mass., was appointed to make a report upon the assessment of real estate. As a result a pamphlet has been issued, *Report of Special Committee on Study of the Local Real Estate Assessment Situation with Recommendations* (Cambridge, Mar. 25, 1915, pp. 14). The committee recommends that the office of assessor be made appointive, that equalization maps be provided, and that a civil engineer be employed to prepare mathematical rules and tables for the valuation of real estate.

## Demography

Infant Mortality Series No. 4 issued by the federal Children's Bureau is entitled *Infant Mortality: Montclair, N. J. A Study of Infant Mortality in a Suburban Community* (Washington, 1915, pp. 35). The study is of considerable interest because it shows the facts regarding a particularly favored suburban community in charge of an efficient health officer. The general infant death rate was 84.6 as against an estimated rate of 124 for the birth-registration area of 1914.

The Children's Bureau has also issued: *Birth Registration and Aid in Protecting Lives and Rights of Children;* and *New Zealand Society for the Health of Women and Children, An Example of Baby Health Saving in Small Towns and Rural Districts* (pp. 18).

The Immigration Restriction League has issued Leaflet No. 63 on *The Reading Test; Why It Should be Adopted* (pp. 6).

## Social Problems

The *First Semi-Annual Report of the Department of Public Welfare* of Chicago (Chicago, 1915, pp. 125) contains: A report of an investigation of unemployment in Chicago (pp. 15-21); preferential employment system; farm employment bureaus; city farming; labor agencies in Chicago; and vocational education. There are also reports of the Bureau of Social Surveys on "the concentration of misery," cheap lodging houses, a housing survey in the Italian district, with illustrations, and on the function of a farm colony.

The Joint Board of Sanitary Control in the Cloak, Suit, and Skirt and the Dress and Waist Industries of New York City (31 Union Square West) has issued *Worker's Health Bulletin,* in which suggestions are given for the care of health.

## Insurance and Pensions

THE AMERICAN WORKMEN'S COMPENSATION ACTS OF 1915. Not since 1911, the year of the earliest permanent enactments, have so many states adopted workmen's compensation in a single year as in 1915. To the 23 older statutes 8 new ones have been added, in Colorado (c. 179), Indiana (c. 106), Maine (c. 295), Montana (c. 96), Oklahoma (c. 246), Pennsylvania (acts 338-343), Vermont (no. 164), and Wyoming (c. 124). Three fourths of the population of continental United States now may be reckoned as within the compensation area, and more than three fourths of the industry. Aside from 10 southeastern states, there remain now without compensation laws only Idaho, the Dakotas, Utah, New Mexico, Missouri, and Arkansas.

The former proportion of one fourth compulsory compensation states and three fourths optional or elective, is preserved by the enactment of compulsory laws in Oklahoma and Wyoming. In Indiana, Maine, Montana, and Vermont the new laws are made optional in quite the familiar way, by abolishing the three common law defenses for such employers as refuse to accept the compensation system and preserving them for such as will accept. But in Colorado the defense of the assumption of the ordinary, the "inherent and necessary" risks is not abolished but remains available as before. And in Pennsylvania all of the defenses are abrogated completely and unconditionally, as in New Jersey: they are not to be retained by the employer whose employees, refusing the compensation system, stand upon their rights of action.

In Montana, Oklahoma, and Wyoming the application of the law is limited to employments which are enumerated in lists and are charac-

terized as hazardous or extra-hazardous, although the lists, not widely different in the three states, include nearly all ordinary industrial occupations in mining, construction, manufacturing and mechanical trades, transportation, and communication, without discrimination according to any established or probable differences of hazard. In the other states the law applies to all employments not specifically excepted, that is, in most of these states, to all employments in trade or business except those in farming and interstate and foreign commerce. Maine excepts also the logging operations of her lumber industry; and Vermont does not, in direct terms, except farming. In Indiana and Pennsylvania employments outside of trade or business are not excluded generally; but in none of the eight states is domestic service covered.

Everywhere it has been the apparent purpose to cover public employments as well as private. Indeed, the six states which leave the compensation optional for private employers declare it compulsory for all or nearly all public employers, from states down to towns and school districts. It is unmistakably optional for the towns of Maine. Oklahoma probably nullifies her inclusion of public employers by an unqualified restriction of the employments which are covered to such as are carried on for pecuniary gain; and some obscurities of phrasing make it no more than a matter of strong probability that the Vermont system was intended to be mandatory upon the state and optional for all subordinate political units. Only in Colorado, Maine, Vermont, and Wyoming is it made clear that officials or elected officials are not to be construed to be public employees.

Employers having less than three employees are not affected in Oklahoma. Among private employers only those having at least four regularly engaged in the same business or employment are affected in Colorado. In Wyoming only those employers who have had at least five in continuous employment for more than one month at the time of an accident need pay compensations except in certain few occupations. In Maine employers are excepted who have not at least six employed in the same business; and in Vermont exception is made at the unusually high figure of ten regular employees. In Indiana, Montana, and Pennsylvania there are no numerical distinctions.

Casual employees are excluded from the benefits of the law generally in Indiana, Maine, Vermont, and Wyoming. They are excluded in private employments in Colorado and in private employments outside of trade or business in Pennsylvania. They are not excluded at all in Montana or Oklahoma. It is true that, in terms, employment "of a casual nature" is excluded in Montana; but it is later declared that

"casual employment means employment not in the usual course of trade, business, profession, or occupation of the employer." In general, all classes of employees are covered. But in Oklahoma only manual and mechanical laborers are included; in Wyoming those are excepted who in clerical positions are not exposed to the hazards of the business and those in official positions or representing the employer; in Vermont none in either public or private service at more than $1500 a year are covered.

In Colorado, Maine, Montana, and Vermont provision is made for the purely voluntary election of the law by employers who are not deprived of their defenses. In Indiana there was the same purpose; but it probably fails because the statute contains no statement of a "manner hereinafter specified" for the election.

In Colorado, Indiana, Pennsylvania, and Vermont the acceptance of the optional system by both employer and employee is presumed, in default of notice to the contrary; and in Pennsylvania the procedure for indicating non-acceptance is so elaborate that it must prove to be a task for most employees and for some employers. In Maine and Montana the employer's election is not presumed but must be signified by his positive action, while the employees of employers who have elected are presumed to have elected also, until they may notify their refusal.

Extra-territoriality, not often faced squarely by the legislators of former years, has interesting treatment in the statutes of 1915. Indiana declares pointedly that her act shall apply to injuries alike whether received "within the State or in some other State or in a foreign country." Pennsylvania, at the other extreme, declares with equal plainness that her act "shall apply to all accidents occurring within this Commonwealth . . . and shall not apply to any accident occurring outside of the Commonwealth." Maine presumes agreements between employers and employees that injuries received outside of the state shall be covered. Vermont does exactly the same in one section, and in another makes extra-territorial application compulsory. In the other states provisions for enforcement by local process imply that the laws shall not have force outside of the several states; although the Colorado law grants compensations "wheresoever such injuries have occurred."

There is a growing tendency to allow the compensations broadly for injuries of which the conduct of the injured may have been one cause. In Montana there is no forfeiture of compensation by any sort or degree of misconduct in the employee. In Wyoming all injuries are to

be compensated except those which are due "solely to the culpable negligence of the injured employee." In Pennsylvania only by an intentional self-infliction of the injury does an employee forfeit his own compensation. In Maine only wilful intention and intoxication while on duty forfeit; and the intoxication does not, if it was known or easily might have been known by the employer. In Vermont to wilful intention and intoxication is added failure to use provided safety appliances. In Oklahoma it is the same, except that it is a wilful failure to use guards or protection furnished in compliance with law or lawful public orders. In Indiana is further added wilful failure or refusal to perform a duty required by statute. In Colorado only wilful intention forfeits completely, while the other forms of misconduct or remissness reduce the compensations by half. In Pennsylvania another is added to the small number of states granting compensation for injuries received in the course of employment without requiring proof that the injuries arose out of the employment. Industrial diseases probably are not to be compensated in any of the states. They are not mentioned in any way in Colorado or Maine; and they appear to be excluded in the other states.

With some striking exceptions, to be noted duly, the benefits provided by the new laws are not so liberal as those provided in the more recent of the earlier laws. The waiting period is 10 days in Wyoming, 21 days in Colorado, and 14 days in the other states, an average of 14⅜ days, as against an average of 11½ in the earlier acts. Medical care, which employers often are disposed to furnish liberally, in their own ultimate interest, the new laws grant in closely restricted amounts. There is none in Wyoming. It is limited to a period of two weeks in Maine, Montana, Pennsylvania, and Vermont, to 15 days in Oklahoma, and to 30 days in Colorado and Indiana. In ordinary cases its cost is limited to $100 in Colorado, to $75 in Vermont, to $50 in Montana, to $30 in Maine, and to $25 in Pennsylvania. This means an average term of 16⅜ days and, as among the states with limits of cost, $56. Among the states with compensation laws in force at the beginning of the year there were 4 which did not limit the duration of the medical care; and for the other 19 the average term was more than 28 days. The average amount where the cost was limited was $150; and there were eight states which set no limit of cost.

Except in Wyoming, where all awards are in absolute amounts, the cash benefits are computed most often on the 50 per cent basis; but there are several other percentages used, in one place or another, and there are so many limitations, both in current payments and in totals

allowed, that the relations between compensations and earnings vary widely.

For the general run of partial disabilities the weekly payments may not be more than $8 in Colorado, $10 in Maine, Montana, Oklahoma, Pennsylvania, or Vermont, or $12 in Indiana. It is noteworthy that Oklahoma, like Minnesota, applies the same minimum to partial as to total disabilities, $6 a week or full lower wages, so that it is quite possible for a low-paid and partially disabled employee to find himself in receipt of an increased income after his injury. On the other hand, in Montana the award for partial disability, plus what the injured person is still able to earn, must not exceed the maximum award for total disability, *i.e.*, $10 a week; so that those earning more than $10 a week may be disabled, even seriously, without being entitled to any compensation. Wyoming makes no awards for temporary partial disabilities. Commonly the payments for partial disability may continue up to 300 weeks; but in Colorado the aggregate of payments may not exceed $2080, and in Montana payments may not continue longer than 50 weeks for temporary cases or 150 for permanent.

For specific maimings most of the new laws follow the established American custom and award compensations at about half of full earnings during definite terms and in lieu of all other payments. But Wyoming grants only lump sums, from $50 for a minor toe to $1000 for the complete loss of an arm or a leg. Colorado ungenerously computes the awards at half of the loss of earning power rather than at half of full earnings. On the other hand, Maine makes these allowances not to the exclusion of all others but for a presumptive total disability attending the injury, and supplements them with the regular allowances for any resultant partial disability. In Indiana the percentage of earnings, at from $10 to $25 a week, is 55, so that the payments may run at from $5.50 to $13.20. Pennsylvania distinguishes not nearly so many maimings as the other states, only five, in fact. In most of the states both maxima and minima are the same as for total disabilities; but Vermont fixes no minimum for the maimings.

The new legislation shows a growing tendency to the allowance of compensation for disfigurement, especially of the face, regardless of any necessary disability to work or earn but upon the assumption of a probably lessened ability to secure employment. Only three of the eight states grant such awards, Colorado, Indiana, and Maine; but there were not more than three among the 23 earlier states which did as much. In Indiana the award for disfigurement may be as high as $13.20 a week and may continue during 200 weeks.

For total disability Wyoming grants definite sums, per month where the disability is temporary and in lump where it is permanent. As in the earlier laws of Washington and Oregon, the amounts increase with the numbers dependent upon the injured, rising from $15 a month to $35 and from $1000 to $2500. Indiana grants 55 per cent of earnings; but the other states compute at 50 per cent and with many limitations and provisos. Within limits of $8 a week and $5 or full lower wages, Colorado pays the compensation as long as the disability continues, even throughout life. At from $13.20 to $5.50 Indiana allows payments as long as 500 weeks, but never to a total of more than $5000. At from $10 a week to $4, Maine limits to 500 weeks and $3000. At from $10 a week to $6 or full lower wages, Montana allows payments as long as 300 weeks for temporary disabilities; for permanent disabilities the initial rate continues for 400 weeks, thereafter to be followed by $5 a week during life. Within the same limits as in Montana, Oklahoma continues payments as long as 300 weeks for temporary disabilities and as long as 500 for permanent. At from $10 a week down to $5 or full lower wages, Pennsylvania sets maxima of 500 weeks and $4000. Within limits of $12.50 and $3 or full lower wages, Vermont restricts payments in ordinary cases to 26 weeks for temporary disability and to 260 for permanent, but allows extensions of 52 weeks for special cause.

Perhaps the most striking feature of any of the year's compensation laws is the omission of all death benefits in Oklahoma, where the law makes no change whatever in the liabilities and rights arising from fatal industrial accidents. In Wyoming modest lump sums, in ordinary cases from $1000 to $2000, are to be paid. In Colorado the nominal allowance to those totally dependent is half pay; but it can never run at more than $8 a week, or longer than 6 years, or to a total of more than $2500. In Indiana it is from $5 to $12 a week during the term of dependence, not above 300 weeks. In Maine, within limits of $4 and $10 a week, it may continue not later than 300 weeks after the date of the injury. In Montana death benefits may be paid only if claimed within six months of the date of the accident; and, within the limits of $10 a week and $6 or full lower wages, they may be paid as long as 400 weeks at rates varying from 30 per cent of wages to 50 per cent, according to the relations of the beneficiaries and dependents to the deceased and without regard to their numbers. In Pennsylvania wages are to be taken at from $10 a week to $20 for the computation of death benefits; and awards at from 15 per cent to 60 per cent, according to the numbers of the dependents and their relations to the deceased,

are payable for a presumptive normal maximum term of 300 weeks. But there is a special proviso, unmatched elsewhere in America, that from 15 per cent to 50 per cent of wages may be continued beyond the 300 weeks as long as there remain dependent children under 16 years of age. In Vermont wages must be taken as from $5 a week to $25; and, for maximum terms of 260 weeks, death benefits are to be paid at from 15 per cent to 45 per cent (from $.75 to $11.25 a week) according to the numbers and relations of the dependents and their measure of dependence upon the deceased. There is no discrimination against alien or non-resident dependents in Indiana or Vermont. In Colorado death benefits are payable to dependents not resident in the United States in but one third of the regular amounts and never to exceed $1000. To alien dependents not resident in the United States or Canada, Maine allows but half of the regular amounts. In Montana only widows, widowers, and children are recognized as entitled to death benefits if not resident in the United States; and these have but half of the full awards. In Pennsylvania only widows and children among alien non-residents of the United States are entitled to compensation as dependents; and these at two thirds the regular rates. In Wyoming only widows and children among alien non-residents are entitled to the payments; and these at but a quarter of the full amounts.

The new statutes generally incorporate all of the recognized and standard provisions for safeguarding and enforcing the employee's rights and his awards. In Maine and Vermont public employers are not required to insure or guarantee their risks. Otherwise all employers are required either to insure or guarantee their liabilities or to satisfy the commissions of their individual solvency and ability to pay directly the compensations granted by the statutes. This formal requirement, of course, is not found in Wyoming, where the compensation system is administered exclusively through a compulsory state insurance fund; and in Indiana, Maine, and Oklahoma approved schemes of employer's benefits may be substituted fully for the obligations of the compensation laws. In every one of the states except Wyoming, proof of individual ability to pay directly is mentioned expressly as one of the permitted methods of assuring the payments.

State compensation insurance funds are established in Colorado, Montana, Pennsylvania, and Wyoming—in the last-named state as the exclusive and compulsory means of covering risks and administering the system, in the other states as a means available at the employer's option. In Colorado and Montana the funds are under the direction of the commissions which administer the compensation laws; in Penn-

sylvania there is a State Workmen's Insurance Board, constituted of the commissioner of labor and industry, the insurance commissioner, and the state treasurer; in Wyoming the state auditor and the state treasurer have charge. In Montana and Wyoming the funds are essentially of the Washington type, with basic or standard premiums which are fixed in the statutes but are to be assessed and collected only to the extent found or judged necessary to meet claims. In Colorado and Pennsylvania the rates are to be determined more nearly after the manner of private insurance companies and with express and definite reference to the maintenance of reserves and surpluses. There is, however, in the laws of Montana and Wyoming nothing to prevent the administration of the funds in accordance with sound financial principles. Indeed, the only vicious financial principles laid down in the statutes are the Pennsylvania one, that premium rates "shall take no account of any physical impairment of employees or the extent to which employees have persons dependent upon them for support," and the Colorado one of substantially similar meaning. In Pennsylvania and Wyoming the funds are to be subsidized generously by the states, in Pennsylvania until July 1, 1919, in Wyoming permanently. In Colorado and Montana the funds are, apparently, to be self-supporting from the first. In Colorado, Indiana, and Pennsylvania there are special provisions to encourage mutual liability insurance associations.

With the single exception of Wyoming, the states commit the administration of the new laws to specially constituted boards or commissions. In Colorado, Indiana, and Montana the commissions have such general relations to industry that they may be considered industrial commissions. In Oklahoma, as also in Colorado, the board is designated as an industrial commission, but its duties are limited to the administration of the compensation law. In Montana the burdens of the board will rest largely upon the chairman; for he alone is an "appointed member" and has a salary. With him are associated, *ex officio,* the commissioner of labor and the state auditor, without additional pay. In Maine it is entirely clear that the burdens must be largely the chairman's. Here again he alone is specially appointed; and, while the insurance commissioner and the commissioner of labor and industry, associated *ex officio,* have certain specific duties under the law, and have additional pay of $500 a year each, the important functions are assigned definitely to the chairman. In Pennsylvania there is an elaborate organization of a Workmen's Compensation Board and a Workmen's Compensation Bureau in the Department of Labor and Industry. In Vermont there

is an appropriately modest Industrial Accident Board of three appointed members. In Wyoming all claims must be presented in the ordinary law courts. But there are unusual provisions for making suits both easy and inexpensive for claimants.

The commissions generally are vested with the large powers which have come to be customary for such bodies in the United States, powers to determine, revise, and commute compensations in more or less summary ways. In Indiana, Maine, Oklahoma, and Pennsylvania the commissioners' findings of fact are conclusive; but, unfortunately, in Colorado, Montana, and Vermont appeals to court may be taken on questions of fact as well as on questions of law. Uncontested or final decisions and awards are enforceable as judgments of court. In Colorado, Indiana, Maine, Oklahoma, Pennsylvania, and Vermont the commissions may approve and validate privately made agreements between employers and employees which are in accordance with the schedules of the statutes. But such settlements are not allowed in Montana; and, of course, none are allowed, formally and expressly, in Wyoming.

In some of the states the new laws come into effect part by part. The dates of full effectiveness are as follows: April 1, 1915, Wyoming; July 1, 1915, Montana and Vermont; August 1, 1915, Colorado; September 1, 1915, Indiana and Oklahoma; January 1, 1916, Maine and Pennsylvania. WILLARD C. FISHER.

REPORTS OF THE INVESTIGATIONS OF FIRE INSURANCE COMPANIES: MISSOURI, PENNSYLVANIA, ILLINOIS, NORTH CAROLINA. Fire insurance is undergoing investigations somewhat similar to the investigations of life insurance which began in 1906, except that the present inquiries concern themselves primarily with the question of rates and combinations among companies. There is no attack upon the efficiency of the companies or the security of the contracts.

During the past decade there have been periodic reports of legislative committees or appointed commissions which have endeavored to inform the public regarding the methods of arriving at rates in fire insurance, but judging from the continued investigations, past investigators have not satisfactorily explained the question.

Many believe that the fire loss on different classes of property in the state should form the basis of rate making for that state. Many also think that the fact that most companies use the rates derived by the rating bureaus prove a combination among the companies to charge the same price for the insurance. This sentiment is strengthened by the

fact that in most cases the larger amount of the fire insurance business in any one state is done by foreign companies, that is, companies chartered in other states, and to a less extent in foreign countries. To witness large sums in excess of the annual fire loss in the state flowing to foreign states and countries appears to many to be a loss, and this failure to "keep money at home" supplies an argument for the organization of home companies, for state insurance, and for restrictive rate legislation.

Much of the dispute regarding rates has centered about the status of inspection or rating bureaus. These organizations are found in practically all states. They are distinct from the insurance companies as such, having for their prime purpose the making of rates to be charged for the fire hazard in a state, a section of the state, and cities. This service is then sold to the fire insurance companies; and since this means a single source of information for the many companies which sell indemnity, it seems that something approaching monopoly prices results. The potential economies are very great. For theoretically, if each company should perform this service individually, the results would be the same, and thus there would be an unnecessary expense. In only a few states have such rating organizations been brought under the strict supervision of the insurance department. In some states they have been either legislated out of existence or have had their work seriously handicapped.

The fire insurance business in Missouri has been in a very much disturbed condition for several years. The Orr law, enacted in 1913, was a stringent anti-trust law applying to insurance companies. Many of the companies refused to do business under it and prepared to withdraw from the state, whereupon they were threatened with prosecution under the anti-trust law, since an agreement to withdraw was held to be a conspiracy. An agreement between the officials of the state and the companies was reached, under which the law was not to be enforced pending an investigation of the whole subject by a commission. This commission reported in 1915, and its report formed the basis of a new law governing fire insurance companies. One of the important provisions of this law is that it permits the operation of rating bureaus under the supervision of the state insurance commissioner. A schedule of rates remains in effect five years, under the experience of which rates are adjusted. It is believed that this new insurance code goes a long way in securing all the desirable results of private insurance with adequate supervision. It avoids the questionable practice of state-

made rates. Either there should be insurance by the state under its own determined rates or private insurance with supervision of rates. With all the extreme power which a state has over insurance it is difficult to understand what would be gained if the state should make the rates rather than supervising rates for private companies.

The Pennsylvania commission was a joint commission of the legislative bodies, provided for in 1913 and reporting in 1915. It was appointed for the especial purpose of investigating "various combinations of fire insurance companies." Including commissions, the fire loss, and other topics, it laid most stress upon the work of rating bureaus and concluded: "Such combinations of insurance companies or their representatives, such as their agents, are not opposed to public policy, are necessary to the solvency of insurance companies and are beneficial to the public." The report further recommends the proper control and supervision of such organizations. On the whole this report is favorable to the fire insurance companies.

The Illinois report, which has occasioned considerable discussion, was a special report by the superintendent of insurance to the governor. A conservative report of a special commission of the legislature had been made in 1911. The present report lacks judicial character. It strongly urges state insurance without any very close analysis of the experience in other countries, or sound reason for its adoption in Illinois. The fire insurance companies are accused of being a "combine" exercising monopolistic powers. The report is full of assertions without proof. It is a good example of the typical attack on trusts so common ten years since.

The North Carolina legislative committee reported in 1914. It gave particular attention to rating bureaus and commissions. The investigation seems to have been well done and is of a constructive character. The commission recommended the enactment of the Kansas law on rates, which gives to the insurance commissioner large control over rates. It also recommends that additional power of investigation of fires be given the state insurance commissioner.

Several other states, either by commissions or by the state insurance commissioner, have investigated the fire insurance companies.

In the midst of all the confusion regarding fire insurance several tendencies may be said to be clear:

*First,* there is some indication that the public is securing a better understanding of the function of a fire insurance company. However slow the progress may be, property owners are beginning to realize

the importance of fire prevention both by proper building and by better protection. The fire loss apparently continues as large as in the past, but a careful analysis will prove that substantial progress has been made and greater progress is assured.

*Second,* there is a marked tendency to supervise rates more closely; in some cases for the state to make the rates, but this tendency is not as strong as several years ago.

*Third,* there is some tendency to standardize the commissions paid to agents for writing the business.

*Fourth,* there is a decided tendency to compel companies to coöperate under the supervision of the state in arriving at rates. The companies in some states are required to file the results of their experience on different classes of property. Unfortunately there is a too well marked tendency to make state experience the basis of determining the rates.

W. F. Gephart.

*Washington University.*

*Laws Relating to Mothers' Pensions in the United States, Denmark, and New Zealand* (pp. 102), published by the Children's Bureau of the federal Department of Labor, contains a five-page list of references.

Note should be made of the *Report of the New York State Commission on Relief for Widowed Mothers* transmitted to the legislature March 27, 1914 (Albany, pp. 584). A chart shows the nature of mothers' pension and allied laws in other states.

The eighth annual meeting of the Minnesota Academy of Social Sciences was devoted to the general topic "Woman and the state." *Papers and Proceedings* have been edited by Professor J. F. Ebersole (206 Mechanic Arts Bldg., University of Minnesota, Minneapolis, 1915, pp. 203). Several papers deal with mothers' pensions and allowances to the dependent children of widows.

Among reports on workmen's compensation to be noted are:

*Report of the Board of Compensation Commissioners* of Connecticut, 1913-14 (Hartford, Pub. Doc. No. 58, pp. 32).

*Michigan Employers' Liability and Workmen's Compensation Act* (pp. 36), a reprint of the law.

*Report of the Nevada Industrial Commission, July 1, 1913 to December 31, 1914* (Carson City, 1915, pp. 108); and *Report of Investigation in Re-claim Number 192* (pp. 30).

*Report of the Employers' Liability Commission Appointed for the Purpose of Observing the Operation of the Employers' Liability Act* (Trenton, 1915, pp. 48).

*Report of Industrial Accidents Commission* of Pennsylvania, 1915 (34th and Chestnut Sts., Philadelphia, pp. 53).

*Financial Statement Showing Condition of Accident Fund on April 1, 1915* (Industrial Insurance Commission of the State of Washington).

The *Fifty-sixth Annual Report of the Superintendent of Insurance of the State of New York.* Part I. *Fire and Marine Insurance* (Albany, 1915, pp. 1308) contains 10 pages of text relating to workmen's compensation legislation in New York from the standpoint of insurance theory and experience.

The Insurance Society of New York has printed in pamphlet form the following addresses delivered before the society: *The Rights of Administrators and Executors over Real Property in connection with the Standard Policy,* by F. O. Affeld, Jr. (Jan. 19, 1915, pp. 18); *The Claim—The Proof of Loss—When is Loss Payable?* by Robert J. Fox (Feb. 2, 1915, pp. 30); *Former and Present Day Methods of Adjustment,* by Samuel R. Weed (Feb. 16, 1915, pp. 15); *Ownership,* by Edgar J. Nathan (Mar. 16, 1915, pp. 17); *Some Observations upon the Business of Fire Insurance as Generally Conducted as a Field for the Investment of New Capital,* by Richard M. Bissell (Apr. 22, 1915, pp. 17); *The State and the Insurance Company,* by David Rumsey (pp. 13); and *The Inspector and the Insured,* by P. M. Griswold.

The Thrift Publishing Company of New York City has for sale *The American Underwriter's Pocket Chart of Life Insurance Companies Operating in the United States for the year ending December 31, 1914,* compiled from special reports secured by "The American Underwriter" (price 25 cents).

## Statistics

THE CENSUS REPORT ON OCCUPATIONS: A REPLY. In the March number of this journal (p. 184) there appeared a review of "The Thirteenth Census Report on Occupations." Mr. Knight, the writer of the review, states that the new classification followed in the occupation report is "a compromise between the older American classifications and the so-called 'international' classification prepared by Dr. Jacques Bertillon for the International Statistical Institute. . . ." This is incorrect. Dr. Bertillon's classification was examined carefully and was

valued highly, but, in formulating a classification, neither our old classification nor Dr. Bertillon's was followed. However, many valuable suggestions were taken from Dr. Bertillon's classification; and, while our new classification can not be said to *follow* Dr. Bertillon's, it is constructed on the same *general* lines and is very similar to it in many respects. Each purports to be a detailed occupational classification with an industrial framework. But while Dr. Bertillon's classification is an undoubted improvement over many of the classifications now in use it is, nevertheless, in many respects a classification by industries rather than by specific occupations, since, frequently, the workers are classified according to what they make rather than according to what they do—according to the *product* to which their services contribute rather than according to the particular processes which they perform. In "Extraction of Minerals," for example, the names of the minerals extracted, as coal, anthracite, peat, etc., are given throughout, and in no case the actual occupations of the workers, as blasters, laborers, foremen, etc. And in "Manufactures," in about two fifths of the cases only the names of the materials worked upon, as jute, laces, ivory, crockery, etc., are given.

In the new classification formulated for the Thirteenth Census report on *Occupation Statistics,* an effort was made to classify occupations with respect to the kind of work done or the character of the service rendered, rather than according to the article made or worked upon, or the place where the work was done. The industrial feature, so common in many classifications, was eliminated except as it served as an aid in showing more clearly and exactly the occupational positions of the different workers. The result was an *occupational* classification with an industrial framework—a classification which shows each specific, elementary occupation in each important industry and service group.

It is true, as Mr. Knight states, that the report is rather lacking in tables comparing the occupation statistics of the Thirteenth and earlier censuses. The original plans for the report contemplated other comparative tables, but, unfortunately, because of a lack of funds, the work on occupations was practically stopped for an entire year, and as a result, the Thirteenth Census period had elapsed before the report was near completion. Then, in compliance with the recommendations of a special advisory committee[1] it was decided to abandon the second and

[1] The members of this committee were S. N. D. North and William R. Merriam, former Directors of the Census; Professor Walter F. Willcox, of Cornell

more complex machine count of the occupation cards and limit the scope of the occupation report to the tables which could be constructed from the first count of the cards. In fact, the recommendation of the committee was "that the tables yielded by the first run of the cards be printed without derivative tables or text."[2] But this recommendation was departed from sufficiently to allow the inclusion in the report of 67 pages of text and text tables.

The increase of the general divisions of classification from five to eight, is one of the few new features of the report on occupations which the reviewer seems to consider real improvements. While this change is believed to be a real improvement, and while it is important that the number of general divisions in an occupation classification correspond with the natural groups into which the workers fall through similarity of occupation, environment, station of life, and the industries in which they work, yet, after all, the number of general divisions in a classification and the grouping of the occupations under them is of far less importance than is the careful and detailed reporting of the individual, specific occupations; for if the different specific occupations are reported separately they will admit of any grouping desired, and the resulting groups can be placed in any general division desired. At most, the general divisions are but a part of the industrial framework of a classification. As part of a useful framework they should be retained and perfected, but they should never be allowed to obscure the real essential of any meritorious occupation classification—the logical and practical classification of the individual occupations.

Probably the most important question raised in the review under discussion is whether the detailed classification presented in Table VI of the occupation report—a classification which shows each important occupation in each of the principal industries and service groups—is too detailed. Mr. Knight thinks it is, and I am sure he is not alone in so thinking. There are many others, however, who think otherwise, and among these are some of the leading statisticians and economists of the United States. A number of these gentlemen were consulted before the final form of the classification was decided upon, and I have their valuable suggestions before me. All of them agree that occupations should be reported in as great detail as the nature of the returns

University; Mr. W. S. Rossiter, formerly Chief Clerk of the Census; and Hon. Daniel C. Roper, First Assistant Postmaster General, and formerly an official of the Census Bureau.

[2] *Quarterly Publications of the American Statistical Association,* vol. XIII, no. 103.

and the practicable size limit of the report will permit. One of our leading statisticians says:

> It might even be preferable for certain purposes to give the occupations as actually stated [by the enumerators] and arrange the same in alphabetical order. . . . It is of the utmost importance that every occupation followed should be stated in the Census, for it is certainly as significant to know the trades as yet but imperfectly developed as to know the very large aggregations where a decrease or an increase is not necessarily of any particular significance.

A professor of economics in one of our largest universities says:

> Personally, I believe that the greater the number of occupational groups established the greater the value of the data for statisticians, who go to the Census for raw material rather than for summary statements. . . . It may be urged that one important object of the Census is to provide raw material as nearly in the raw state as possible, thus enabling each investigator to get data rather than summaries, and to make his own synthesis. It is always possible for an investigator to combine small groups into larger, but never possible for him to divide large groups into smaller component ones. . . . The combination of groups which he might wish to make in connection with special investigations is indefinitely great and cannot be determined by the Census Bureau. Any massing together of groups tends to stop off such work. Since the Census Bureau cannot anticipate the thousands of questions, an answer to which will be sought in the Census, it should present detailed data which can be worked up as may be required. . . .I would urge that the number of groups be made as large as is practically possible, and that as near an approach as possible be made to the ideal occupational census, wherein every species of occupation actually developed is recognized. A perfect occupational census would reflect exactly, minutely and completely the division of labor in industry.

An examination of the reports of the recent investigations of social and social-economic questions, and of the legislation recommended or enacted on these questions, shows conclusively that our investigators, and many of our legislators, are taking cognizance of the importance of specific occupations and are no longer content with studying, or with passing legislation for entire industries. In numerous social and social-economic problems, the solution requires an intimate knowledge of the occupational status of the workers concerned. This knowledge can be secured only through an intensive study of the actual processes performed or services rendered by these workers. And, in each industry, this study must be as detailed as the division of labor is great.

If we would be specific in our discussion of occupations, we must first have statistics of specific occupations. Such statistics may be difficult to secure, and they may be expensive to tabulate and report, but, with the ever increasing complexity of our present-day industrial processes, it is becoming more and more evident that the old-fashioned industrial-group occupation statistics are becoming less and less worth

collecting and reporting, for they are contributing less and less toward the solution of those problems in which occupation is a factor.

The detailed occupation statistics presented in Table VI of the occupation report are not above criticism. Their principal defect, however, is not that the occupations are presented in too great detail. In fact, the detail is not sufficiently minute to meet the demands now being made on the Bureau of the Census. As stated in the report, Table VI can not be considered an exact and technically correct presentation of each specific occupation which is pursued in each of the industries and service groups which it includes. It is, however, the nearest approach to this ideal which was possible and practicable under the existing conditions and limitations of the enumeration, classification, and presentation of occupations at the Thirteenth Census; and the use that has been and is being made of this table fully justifies this first attempt of the Bureau of the Census to classify and to present detailed statistics for each specific, elementary occupation in each important industry and service group in the United States.

As time passes, changes in the form of presentation of our occupation statistics doubtless should and will be made; but whatever changes are made, the present form of detailed classification, perhaps with some modifications, probably will be the basis for the classification ultimately used, for the demand is more and more for detail that can be presented only by some such form of classification. What is needed now is greater accuracy in enumeration, rather than material changes in classification.

One of the contemplated features of the occupation report which had to be abandoned because of a lack of time was a series of cross-classification reference numbers, showing which of the elementary occupations presented in the most detailed table (Table VI) were combined in each respective occupation group presented in the more condensed general tables of the report. This defect is largely remedied, however, by a classification of occupations, now published, showing which of the principal occupational designations returned by the census enumerators were included in each respective occupation group presented in the more condensed general tables of the report.

Mr. Knight considers it a "serious defect" that each occupation of the condensed list is classified in that part of the industrial field in which it is most commonly pursued, and says that "the result is frequently obscure, not to say misleading." In reply, I need only say that it would have been a far more "serious defect," and the result

would have been much more "frequently obscure" and "misleading" had each occupation of the condensed list been classified in some other part of the industrial field than that in which it is most commonly pursued. And in reply to his statement that "there is no key to what has been done," I will say that the general plan of combining the elementary occupations of Table VI into the larger occupation groups of the other general tables and of classifying these occupation groups under the different general divisions of the classification is adequately described on pages 24 and 25 of the report.

On page 186 of the review under consideration, the writer says:

"Most (but not all) of the 'trades' of the group are placed under Manufacturing and Mechanical Industries; some (draftsmen and designers) are included among the professions; and others (decorators, wheelwrights, mechanical engineers) are not to be found at all."

Now, the occupation of the draftsman or that of the designer resembles that of the artist (included with the professions) much more closely than it does that of the blacksmith or that of the carpenter (each placed under Manufacturing and Mechanical Industries); "wheelwrights" and "mechanical engineers" *are* "to be found"; and it is evident beyond question that all the various kinds of "decorators" could not properly be combined and presented as one occupation.

If by the statement that "the 'proprietary, official and supervisory' persons might be thought fairly to constitute an occupational class," and the reviewer means that these occupations should be erected into a separate class of occupations, as was done with clerical occupations, then I can only reply that to have done this in each of these cases and in each similar case would have been both impracticable and illogical. A clerk is a clerk, and a stenographer is a stenographer, wherever employed; and clerical occupations can hardly be said to be more peculiar to one general division of occupations than to another. But a farmer clearly belongs in agriculture, a manufacturer in manufacturing, and a merchant in trade; and to classify these persons otherwise would be quite illogical.

The suggestion of Mr. Knight that we have "at least the three gradations of occupied, partially occupied, and unoccupied" may be a good ideal for the future, but with the conditions of enumeration similar to those prevailing at any of our past censuses it is doubtful whether the suggestion has any present practical value. Our failure to collect satisfactory statistics of the number of months each employee was unemployed during the year shows that we would not be very successful in

attempting to learn whether each person was "occupied, partially occupied, or unoccupied." In fact, at each of the last three censuses, did we not attempt to secure much this same information for employees through the occupation and unemployment inquiries of the population schedule? Unfortunately, it is true, as Mr. Knight says and as was fully discussed in the report (pp. 26-29), that the statistics showing the number of women and children engaged in agricultural pursuits probably are quite inaccurate; but, inaccurate as they are, if studied carefully and used with discretion they are far from being "worthless," even as an indication of the number employed; and it is almost certain their accuracy would not have been increased by asking each woman and child the additional question as to whether she or it was "occupied, partially occupied, or unoccupied" during the year.

In conclusion, I wish to state frankly that I consider the occupation statistics in this country today rather crude and undeveloped in some respects. They are far from being what they should be and what, in time, they probably will be; but, both in accuracy and in form of presentation, the Thirteenth Census occupation statistics are so far in advance of those of the Twelfth Census that they are cause for hope rather than for despair, for optimism rather than for pessimism. For example, at the Twelfth Census all the religious and charity workers were classified and reported as "clergyman"; all the abstractors, notaries, and justices of the peace were classified and reported as "lawyers"; all the non-medical healers were classified and reported as "physicians and surgeons"; and all the machine-oilers were classified and reported as engineers and firemen (not locomotive)"—nor in any case was the credulous user of these statistics warned as to the actual composition of the harmless looking occupation reported. Doubtless some mistakes of classification were made at the Thirteenth Census, but, as a rule, the occupations reported are what they appear to be. Our efforts should be toward further increasing the accuracy. In our detailed occupation statistics, we have now, as we have never had before, the basis for a real scientific study of the occupations of this country, and this study should be made before our next census. This and *better enumeration* are the things most needed.

ALBA M. EDWARDS.

ESTIMATED VALUATION OF NATIONAL WEALTH. The title of this recent United States Census bulletin appropriately makes conspicuous the word "estimated." That a figure of aggregate national wealth should be estimated, not ascertained, is inevitable. The summary classification for the country as a whole is shown in the following table:

*Estimates of wealth for 1904 and 1912, with per cent increase in the 8-year period, and per cent distribution for each of these years.*

| Number of item | Form of wealth | 1904 | | 1912 | | Per cent increase 1904-1908 |
|---|---|---|---|---|---|---|
| | | Amount (millions) | Distributive per cent | Amount (millions) | Distributive per cent | |
| | Total | $107,104 | 100.00 | $187,739 | 100.00 | 75.3 |
| 1 | Real property and improvements taxed | 55,510 | 51.83 | 98,363 | 52.39 | 77.2 |
| 2 | Real property and improvements exempt | 6,831 | 6.38 | 12,313 | 6.56 | 80.3 |
| 3 | Live-stock | 4,074 | 3.80 | 6,238 | 3.32 | 53.1 |
| 4 | Farm implements and machinery | 845 | .79 | 1,368 | .73 | 61.9 |
| 5 | Manufacturing machinery, tools and implements | 3,298 | 3.08 | 6,091 | 3.25 | 84.7 |
| 6 | Gold and silver coin and bullion | 1,999 | 1.87 | 2,617 | 1.39 | 30.9 |
| 7 | Railroads and their equipment | 11,245 | 10.50 | 16,149 | 8.60 | 43.6 |
| | Street railways, etc.: | | | | | |
| 8 | Street railways | 2,220 | 2.07 | 4,597 | 2.45 | 107.1 |
| 9 | Telegraph systems | 227 | .21 | 223 | .12 | — 1.8 |
| 10 | Telephone systems | 586 | .55 | 1,081 | .58 | 84.6 |
| 11 | Pullman cars not owned by railroads | 123 | .11 | 123 | .07 | .3 |
| 12 | Shipping and canals | 846 | .79 | 1,491 | .79 | 76.2 |
| 13 | Irrigation enterprises | ..... | ..... | 361 | .19 | ..... |
| 14 | Privately owned waterworks | 275 | .26 | 290 | .15 | 5.5 |
| 15 | Privately owned central electric light and power stations | 563 | .53 | 2,099 | 1.12 | 272.8 |
| | All other: | | | | | |
| 16 | Agricultural products | 1,899 | 1.77 | 5,240 | 2.79 | 175.9 |
| 17 | Manufactured products | 7,409 | 6.92 | 14,694 | 7.83 | 98.3 |
| 18 | Imported merchandise | 496 | .46 | 827 | .44 | 66.8 |
| 19 | Mining products | 408 | .38 | 816 | .43 | 99.9 |
| 20 | Clothing and personal adornments | 2,500 | 2.33 | 4,295 | 2.29 | 71.8 |
| 21 | Furniture, carriages and kindred property | 5,750 | 5.37 | 8,463 | 4.51 | 47.2 |

The method of arriving at these figures deserves consideration. The first and most important item is based upon the returns of local tax assessors, which are duly "equalized" at 100 per cent. The second is arrived at by assuming a nearly constant ratio to the first. The next three are chiefly the decennial census figures corrected for time. Coin and bullion are shown as regularly estimated by the Director of the Mint. Railroads are entered at the aggregate of their fixed-capital accounts less something for depreciation. This is crude as compared with the "commercial valuation" method of 1904. The important items under "Street railways, etc." are similarly treated, but in the case of street railways and electrical companies, at least, no allowance is made for depreciation. The last group of items, consisting mainly of consumption goods in the hands of dealers or consumers, are variously, and it appears rather arbitrarily, estimated by means of assumed ratios of the extant stock to recent production or importation. It would be better, but perhaps an impractical ideal, if all the data could be based upon inventoried number *times* unit cost, *less* depreciation. The writer sees no objection to the application of such a method to public streets and the like, which are omitted from the estimate.

The use of the term "valuation" in the title of the bulletin blunts a possible objection as to the character or significance of the pecuniary units by which the quantity of wealth is measured. But the question as to the importance of a change in the purchasing power of money is only the more definitely raised. The influence of an increasing population upon the valuation of land and other natural resources should be considered. The inference of the "man in the street" (including the man in Wall Street) from the aggregate pecuniary valuation of wealth to a corresponding quantity and increase of well-being or its means is not warranted.

According to the United States Bureau of Labor, wholesale prices for 1912 as compared with 1904 were in the ratio of 133.6 to 113.0, or 18.2 per cent higher. Retail prices were in the ratio of 154.2 to 116.2, or 32.7 per cent higher. But the valuation of wealth was 75 per cent greater.

The proportion of land value in the total can only be inferred from the proportion of taxed real property, for which the distributive per cent increased from 51.83 to 52.39. The figures warrant an inference stronger than may appear, because it is probably a general rule that the proportion of the value of improvements upon land to the value of the land with improvements decreases as the combined value per acre increases.

Even after allowing for such qualifications, it appears that there was an extraordinary increase of wealth, not merely of valuation, in the eight years. The *per capita* figure for 1904 (assuming 82,385,651 population) was $1,300; that for 1912 was $1,973. But an allowance for change in the price level occasions an increase of the former figure for comparison by perhaps 25 per cent, making it 1,625 dollars (?) per capita. According to this computation, the per capita per cent increase over 1904 was 21.4. This is sufficiently remarkable, but it is in large proportion due to an increase in the valuation of land and other natural gifts that have not meanwhile increased their potentialities for conferring benefits upon mankind. Some of this sort of increase is doubtless in turn due to more adequate occupation of national advantages, but more of it is of the nature of the increment in the value of the ground upon which New York City is built.

The reviewer leaves his task with a strengthened feeling that economic statistics must be as much economics, even theoretical economics, as statistics. It would do no harm for the Census Bureau to make its theories explicit. But if one would find fault with the present bulletin, it should rather be on the ground that the amount of estimation by way of rough ratios, of such a nature as the private statistician might be expected to employ, seems unduly large in these 1912 figures and larger than in 1904. Each succeeding census estimate should have more the character of an actual inventory.

G. P. WATKINS.

The federal Bureau of Labor Statistics in Bulletin No. 156, *Retail Prices 1907 to December, 1914* (Washington, Mar., 1915, pp. 397) in Appendix A gives an explanation of the new method of computing retail prices and index numbers and the reasons which have led to the discarding of old methods of computation.

Report No. 3 of the Department of Investigation and Statistics of the Industrial Commission of Ohio deals with *Statistics of Mines and Quarries in Ohio, 1913*. Formerly the data here included were published in the annual reports of the chief inspector of mines. Greater emphasis is now given to statistics of injuries.

Charles F. Gettemy, director of the Massachusetts Bureau of Statistics, has prepared a pamphlet on *The Massachusetts Bureau of Statistics, 1869-1915. A Sketch of its History, Organization and Functions together with a List of its Publications and Illustrative Charts* for the Massachusetts Panama-Pacific Exposition Commission (Boston, pp. 115). The charts are of special interest.